

**Abstract**

An enhanced activated sludge wastewater treatment method increases volumetric pollutant loading, hydraulic loading capacity and nutrient removal efficiency at a conventional activated sludge wastewater treatment plant. The method describes the control of return activated sludge rates, and the operation of partitioned aeration and reaeration zones according to measured properties of the mixed liquor to achieve the claimed benefits. Operating an existing treatment plant according to the enhanced treatment method provides a more consistent treatment process that is resistant to shock loading and increases plant capacity without the need for costly construction and operation of additional reactors and clarifiers.